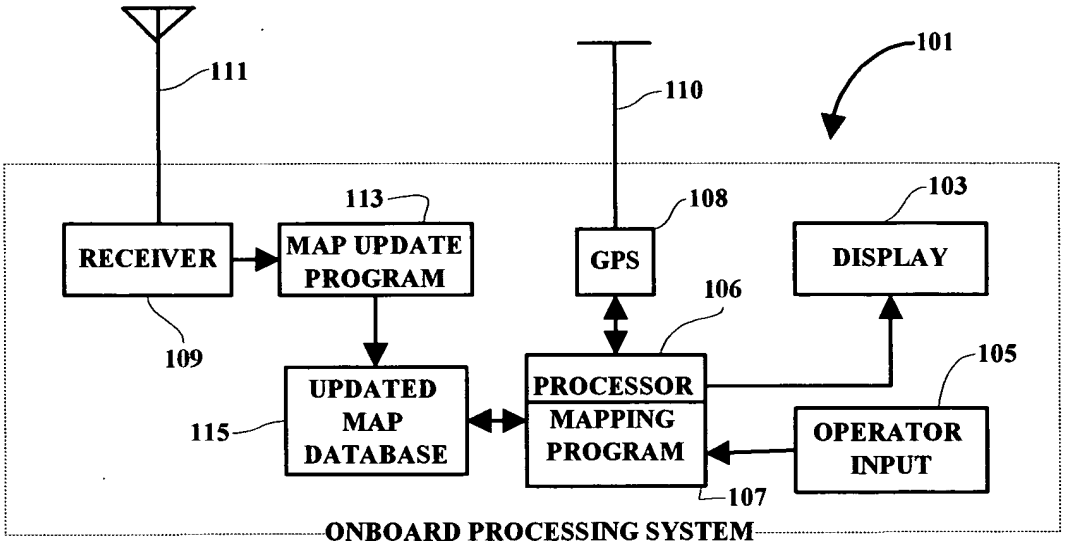
111
110
101
113
108
103
RECEIVER
MAP UPDATE PROGRAM
GPS
DISPLAY
106
109
105
UPDATED MAP DATABASE
115
PROCESSOR
MAPPING PROGRAM
OPERATOR INPUT
107
ONBOARD PROCESSING SYSTEM

FIG. 1

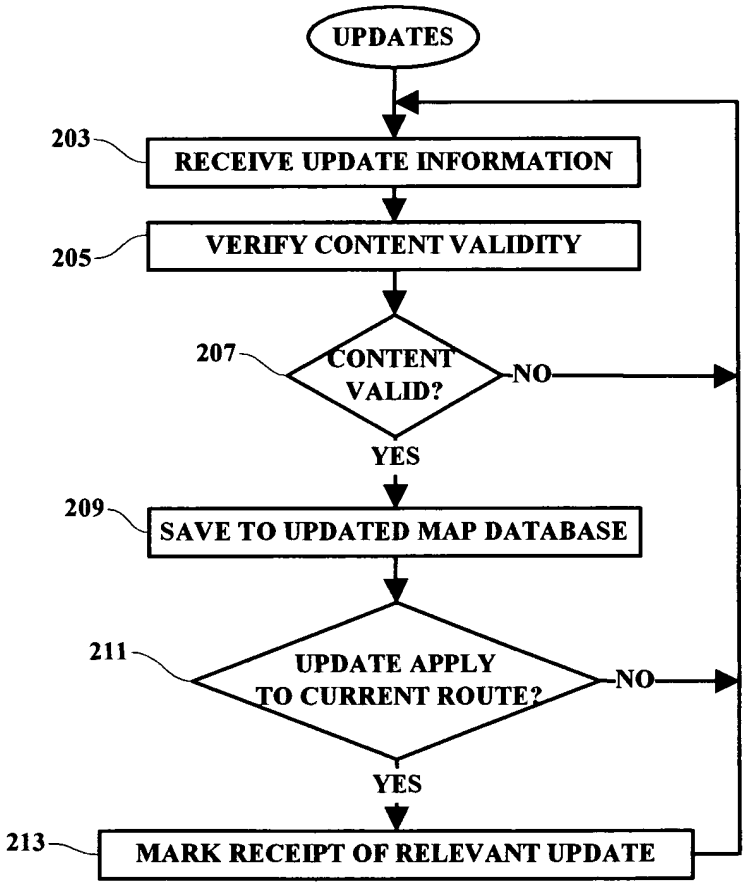
UPDATES
203
RECEIVE UPDATE INFORMATION
205
VERIFY CONTENT VALIDITY
207
CONTENT VALID?
NO
YES
209
SAVE TO UPDATED MAP DATABASE
211
UPDATE APPLY TO CURRENT ROUTE?
NO
YES
213
MARK RECEIPT OF RELEVANT UPDATE

FIG. 2

ROAD SEGMENT INFORMATION PACKET

FIELD 1	ROAD SEGMENT IDENTIFICATION	301
FIELD 2	CURRENT TRAFFIC FLOW RATE	303
FIELD 3	AVERAGE FLOW RATE - PAST 5 MINUTES	305
FIELD 4	AVERAGE FLOW RATE - PAST 10 MINUTES	307
FIELD 5	AVERAGE FLOW RATE - PAST 15 MINUTES	309
FIELD 6	FLOW RATE EXPIRATION TIME/DATE	311
FIELD 7	CHECK SUM	313

FIG. 3

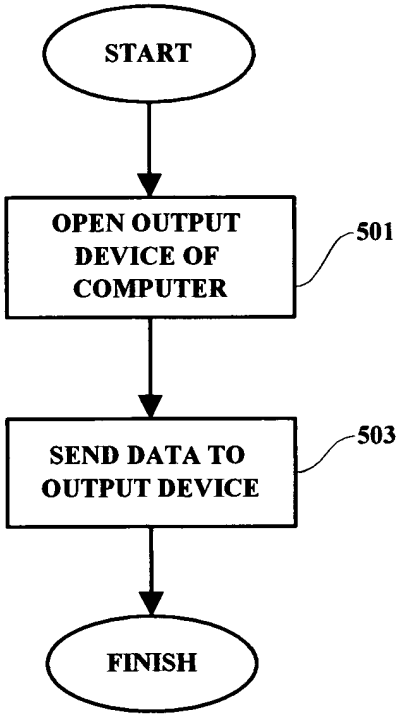

FIG. 5

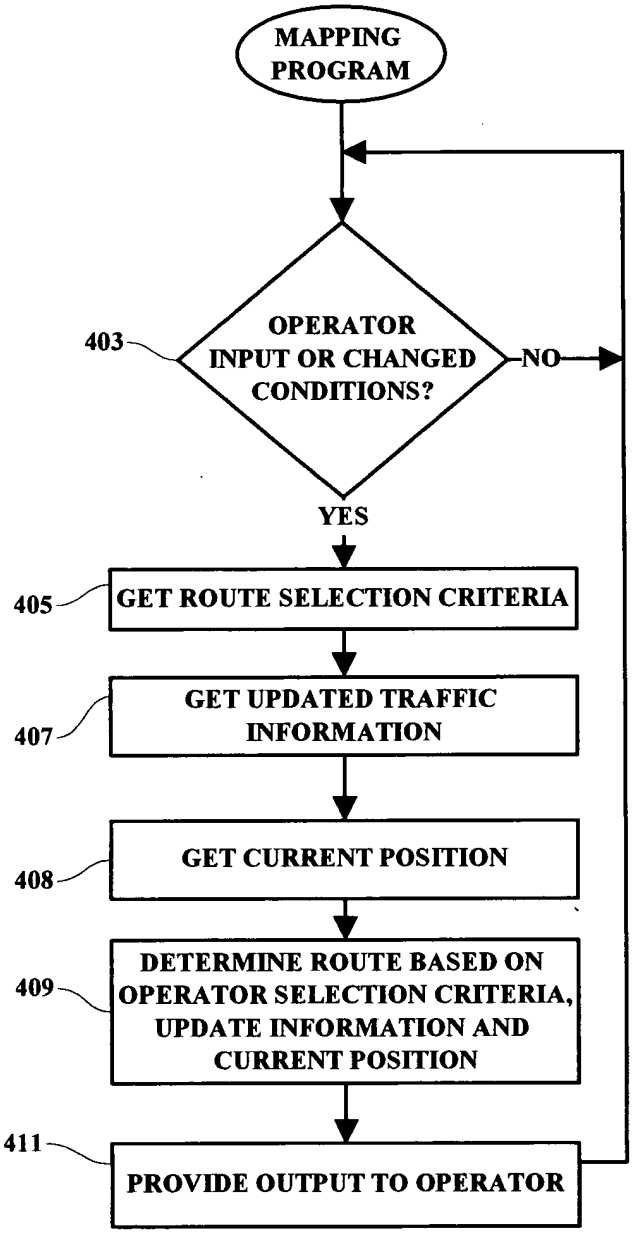
MAPPING PROGRAM
403
OPERATOR INPUT OR CHANGED CONDITIONS?
NO
YES
405
GET ROUTE SELECTION CRITERIA
407
GET UPDATED TRAFFIC INFORMATION
408
GET CURRENT POSITION
409
DETERMINE ROUTE BASED ON OPERATOR SELECTION CRITERIA, UPDATE INFORMATION AND CURRENT POSITION
411
PROVIDE OUTPUT TO OPERATOR

FIG. 4

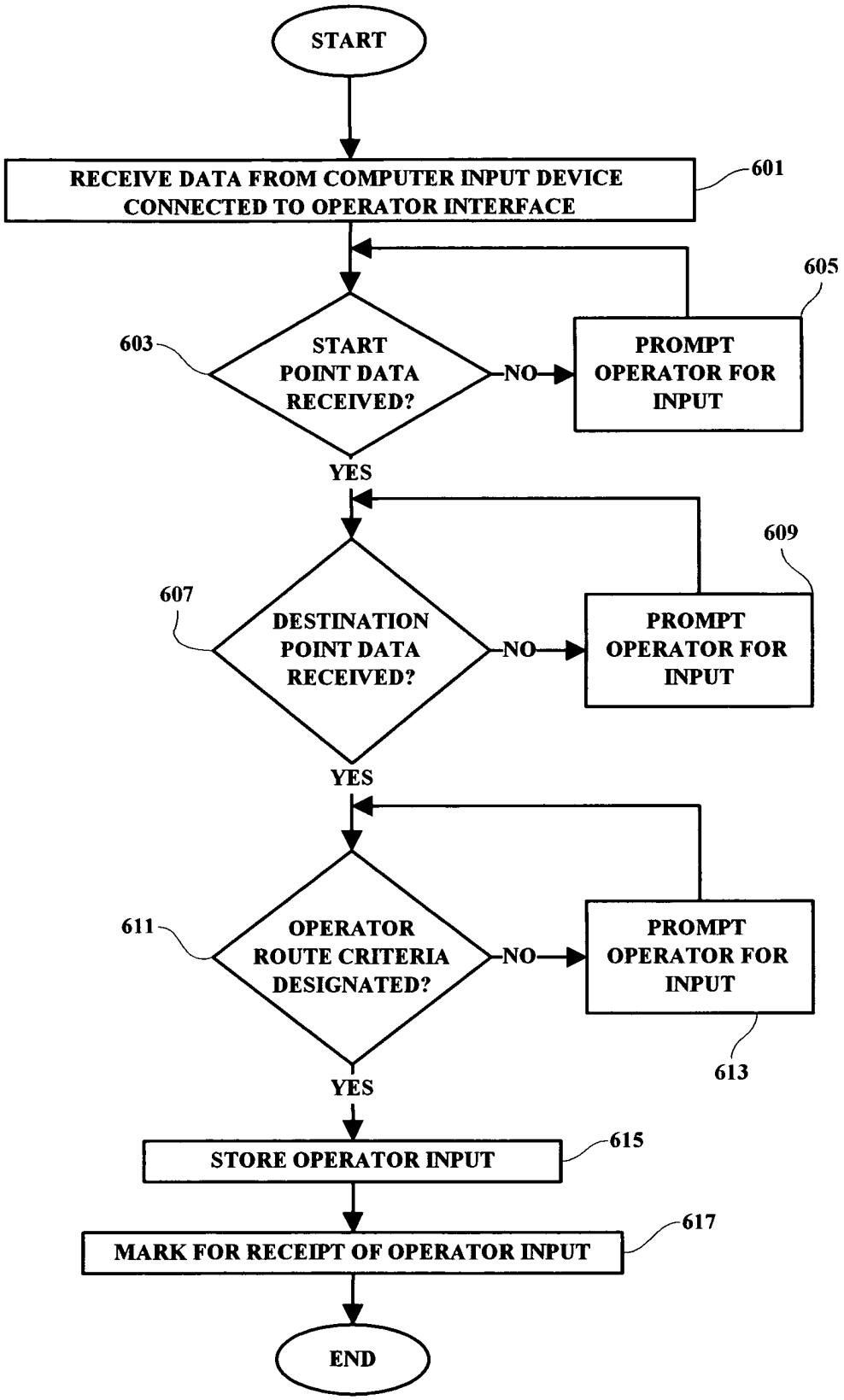
START
RECEIVE DATA FROM COMPUTER INPUT DEVICE CONNECTED TO OPERATOR INTERFACE
601
START POINT DATA RECEIVED?
603
NO
PROMPT OPERATOR FOR INPUT
605
YES
DESTINATION POINT DATA RECEIVED?
607
NO
PROMPT OPERATOR FOR INPUT
609
YES
OPERATOR ROUTE CRITERIA DESIGNATED?
611
NO
PROMPT OPERATOR FOR INPUT
613
YES
STORE OPERATOR INPUT
615
MARK FOR RECEIPT OF OPERATOR INPUT
617
END

FIG. 6